WHAT IS CLAIMED IS:

1. A co-extruded medical tube, comprising:

a first layer; and

a second layer disposed radially inwardly of the first layer,

wherein the first and second layers have different compositions, and one of the layers comprises a nanocomposite material and has a viscosity between 25% and 120% of a viscosity of the other layer as measured at a shear rate of $1s^{-1}$ and a temperature of 220°C.

2. The medical tube of claim 1, wherein the second layer is bonded directly to the first layer.

3. The medical tube of claim 1, wherein the first layer is the outermost layer of the co-extruded tube.

4. The medical tube of claim 1, further comprising a third layer having a different composition than the second layer, the third layer having a viscosity greater than a viscosity of the second layer as measured at a shear rate of $1s^{-1}$ and a temperature of 220°C.

5. The medical tube of claim 4, wherein the composition of the third layer is different that the composition of the first layer.

6. The medical tube of claim 5, wherein the third layer is the innermost layer.

7. The medical tube of claim 1, wherein the composition of the first layer is a nanocomposite.

8. The medical tube of claim 8, wherein the composition of the second layer is a non-nanocomposite.

9. The medical tube of claim 1, wherein the first and second layer has a thickness uniformity of 80% or greater around the circumference of the medical tube.

10. A co-extruded medical tube comprising:

a first layer comprising a nanocomposite material having a first viscosity; and

a second layer comprising a second material and having a second viscosity,

wherein the first viscosity is from about 25% to about 120% of the second viscosity as measured at a shear rate less than about $1s^{-1}$ and a temperature of about 60°C to about 120°C above a flow temperature of a highest flow temperature material that is co-extruded.

11. The medical tube of claim 10, wherein the shear rate has a value of about $0.1s^{-1}$.

12. The medical tube of claim 10, wherein the temperature is 220°C.

13. The medical tube of claim 1 further comprising a third co-extruded layer comprising a third material having a third viscosity that varies with shear rate,

wherein the second viscosity is from about 5% to about 35% of the third viscosity as measured at a shear rate less than about $1s^{-1}$ and a temperature of about 60°C to about 120°C above a flow temperature of a highest flow temperature material that is co-extruded.

14. The medical tube of claim 10, wherein the second material comprises Plexar® PX380, a modified polyolefin.

15. The medical tube of claim 13, wherein the third material comprises Marlex®, a high density polyethylene.

16. The medical tube of claim 10, wherein the first layer comprises at least about 30% of a cross-sectional area of the medical tube.

17. The medical tube of claim 10, wherein the second layer comprises at least about 5% of a cross-sectional area of the medical tube.

18. The medical tube of claim 13, wherein the third layer comprises at least about 10% of the medical device.

19. The medical tube of claim 10, wherein the first layer and the second layer are coextensively co-extruded.

20. The medical tube of claim 10, wherein the first layer and the second layer are intermittently co-extruded.

21. A medical device comprising:

a tubular body comprising a plurality of co-extruded layers,

wherein a viscosity of a first layer is from about 25% to about 120% of a second viscosity of an adjacent layer as measured at a shear rate less than about $1s^{-1}$ and a temperature of about 60°C to about 120°C above a flow temperature of a highest flow temperature material that is co-extruded.

22. The medical device of claim 21, wherein the shear rate is below about $0.1s^{-1}$.

23. The medical device of claim 21, wherein at least one of the plurality of co-extruded layers comprises a nanocomposite material.

24. The medical device of claim 21, wherein the plurality of co-extruded layers comprises an outer nanocomposite layer, a middle layer, and an inner layer.

25. The medical device of claim 24, wherein the middle layer comprises Plexar® PX380, a modified polyolefin.

26. The medical device of claim 24, wherein the inner layer comprises Marlex®, a high density polyethylene.

27. A method of manufacturing a device including a first layer and a second layer, the method comprising:

selecting a shear rate at or below about $1s^{-1}$;

selecting a temperature;

selecting a material for the second layer, the material having a viscosity value at the shear rate and the temperature;

selecting a nanocomposite material for the first layer that has a viscosity within about 20% to about 125% of the viscosity value of the material for the second layer; and

co-extruding the first and second layers.

28. The method of claim 27, wherein the device is a medical device.

29. The method of claim 27, wherein the shear rate is below about $0.5s^{-1}$.

30. The method of claim 27, wherein the shear rate is about $0.1s^{-1}$.

31. The method of claim 27, wherein the temperature is about 60°C to about 120°C above a flow temperature of a highest flow temperature material co-extruded.

32. A tubular member comprising:

a first layer and a second layer co-extruded with the first layer, wherein one of the layers comprises a nanocomposite material, and one of the layers comprises a thickness that varies by less than about 20% from a mean value of thickness, the thickness being measured at four points per cross-sectional cut made at ten random, non-consecutive locations along a production length of the tubular member.

33. The tubular member of claim 32, wherein the thickness varies by less than 15% from the mean value of thickness.

34. The tubular member of claim 32, wherein the thickness varies by less than 10% from the mean value of thickness.

35. The tubular member of claim 32, wherein the first layer has a first thickness that varies less than about 20% from a mean value of thickness for the first layer and the second layer has a second thickness that varies less than about 20% from a mean value of thickness for the second layer.

36. The tubular member of claim 33, wherein the tubular member further comprises a third layer.

37. A method of making a medical device, the method comprising:

forming a tubular member, the tubular member comprising a first layer and a second layer co-extruded with the first layer, wherein one of the layers comprises a nanocomposite material, and one of the layers comprises a thickness that varies by less than about 20% from a mean value of thickness, the thickness being measured at four points per cross-sectional cut made at ten random, non-consecutive locations along a production length of the tubular member; and

incorporating a portion of the tubular member as a component of the medical device.

38. The method of claim 37, wherein the medical device is a catheter.

39. The method of claim 37, wherein the medical device is a balloon-catheter.

40. The method of claim 37, wherein the thickness varies by less than 15% from the mean value of thickness.

41. The method of claim 37, wherein the thickness varies by less than 10% from the mean value of thickness.